

# United States Department of the Interior

## FISH AND WILDLIFE SERVICE

Ecological Services  
6669 Short Lane  
Gloucester, VA 23061

October 21, 2002

Colonel David L. Hansen  
U.S. Army Corps of Engineers  
Norfolk District  
803 Front Street  
Norfolk, Virginia 23510-1096

Attn: Adrian Jennings  
Regulatory Branch

Re: Biological Opinion for Richard  
Metzger, Permit Application # 01-  
V1021, Mathews County, Virginia

Dear Colonel Hansen:

This document transmits the U.S. Fish and Wildlife Service's biological opinion based on our review of the above referenced groin reconstruction project located in Mathews County, Virginia and its effects on the northeastern beach tiger beetle (*Cicindela dorsalis dorsalis*), in accordance with section 7 of the Endangered Species Act (ESA) of 1973 (87 Stat. 884, as amended; 16 U.S.C. 1531 et seq.). This biological opinion is based on information provided in the permit application, telephone conversations, field investigations, and other sources of information. The U.S. Army Corps of Engineers' (Corps) proposed action is to issue a Department of the Army permit to the applicant for the proposed construction activity. A complete administrative record of this consultation is on file in this office.

### I. CONSULTATION HISTORY

- |          |  |
|----------|--|
| 05/30/02 | Corps requested Service review project.  |
| 06/03/02 | The Service conducted a site visit.  |
| 06/05/02 | The Service received the Corps' request to initiate formal consultation.   |
| 06/05/02 | Letter from Service to the Corps stating that a biological opinion would be provided to the Corps by October 18, 2002. |

## II. BIOLOGICAL OPINION

### DESCRIPTION OF PROPOSED ACTION

The property of Richard Metzger is located on the Chesapeake Bay, on Gwynn Island, and may be accessed from a private lane off of County Route 637 in Mathews County, Virginia (Figure 1). The applicant proposes to rebuild an 80-foot long low profile timber groin on the southeastern end of his shoreline to extend approximately 50 feet channelward of the mean high water and approximately 30 feet landward to the existing bulkhead (Figure 2).

The applicant's shoreline is an approximately 100-foot long, sandy beach with an average width of 40 feet abutting an existing bulkhead. This beach provides approximately 4,000 square feet of tiger beetle habitat, depending upon winds and tides. Sandy beaches, with groins approximately every 100 feet, are located to the north and south of the applicant's beach.

The "action area" is defined as all areas to be affected directly or indirectly by the federal action and not merely the immediate area involved in the action. Groins will accrete sand on one side of a groin while causing sand to erode away from the other side to a various extent. However, the accretion and erosion patterns in the sand around the old groins are not expected to change significantly with their reconstruction. The Service has determined that the action area for this project includes the beach area between MLW and the existing bulkhead, between the two existing groins, on the Metzger property (Figure 2). This area measures approximately 100 feet long by 40 feet wide and has a total area of approximately 4,000 square feet.

### STATUS OF THE SPECIES RANGEWIDE

This information on the status of the northeastern beach tiger beetle was provided to the Corps in a biological opinion dated August 23, 2001 for permit application 00-V1662. That information remains pertinent.

### ENVIRONMENTAL BASELINE

Status of the Species Within the Action Area - Knisley (2001) documented 572 adult and 12 larval tiger beetles (1.7 per 2m transect) on the stretch of beach that begins almost immediately northwest of the applicant's property and extends approximately 4,700 feet southeast. The applicant has declined to have a survey performed and is willing to assume the presence of the northeastern beach tiger beetle.

Factors Affecting Species Habitat Within the Action Area - Beach erosion and modification, from

natural and anthropogenic modifications, affects the habitat at the project site. The beaches in the vicinity of the action area are very similar in width and relief. Other groins are located on the beaches to the northwest and southeast of the action area. It is unclear what impact this groin field has had on this beach strand in the past.

### EFFECTS OF THE ACTION

Direct Effects - Direct impacts to both adult and larval tiger beetles will result from the crushing and subsequent injury or death, during reconstruction of the groin from use/placement/ stockpiling of equipment and materials on the beach and foot traffic within the construction area. Construction will also result in temporary loss of habitat for adults through disruption of their daily activity patterns (*i.e.*, foraging, mating, basking, egg-laying) and the redistribution of sand. Larval beetles may be prevented from feeding during that time due to their sensitivity to vibrations, movements, and shadows, resulting in injury and potentially death.

Interrelated and Interdependent Actions - An interrelated activity is an activity that is part of the proposed action and depends on the proposed action for its justification. An interdependent activity is an activity that has no independent utility apart from the action under consultation. No activities interrelated to and interdependent with the proposed action are known at this time.

Indirect Effects - Indirect effects are defined as those that are caused by the proposed action and are later in time, but still are reasonably certain to occur (50 CFR 402.02). Groins are designed to capture sand from long shore movement and will help ensure that a beach continues to exist at this site. However, the Service does not expect the reconstruction of this groin to significantly change the pattern of sand movement from that which occurred around the existing groin.

Future maintenance of the proposed shoreline stabilization structure may not require Corps' authorization. This activity may result in disruption, injury, or death to adult and larval tiger beetles through heavy foot traffic on beach areas, use/stockpiling of equipment, and stockpiling/ placement of materials.

### CUMULATIVE EFFECTS

Cumulative effects include the effects of future state, tribal, local, or private actions that are reasonably certain to occur in the action area considered in this biological opinion. Future federal actions that are unrelated to the proposed action are not considered in this section because they require separate consultation pursuant to Section 7 of the ESA. The Service is not aware of any cumulative effects within the action area at this time.

### CONCLUSION

After reviewing the current status of northeastern beach tiger beetle throughout its range and in the

action area, the environmental baseline for the action area, the effects of the proposed action, and the cumulative effects, it is the Service's biological opinion that the shoreline stabilization structure, as proposed, is not likely to jeopardize the continued existence of the northeastern beach tiger beetle. No critical habitat has been designated for this species; therefore, none will be affected.

### III. INCIDENTAL TAKE STATEMENT

Section 9 of the ESA and federal regulation pursuant to Section 4(d) of the ESA, prohibit the take of endangered and threatened species, respectively, without a special exemption. Take is defined as to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture or collect, or to attempt to engage in any such conduct. Harm is further defined by the Service to include significant habitat modification or degradation that results in death or injury to listed species by significantly impairing essential behavioral patterns such as breeding, feeding, or sheltering. Harass is defined by the Service as intentional or negligent actions that create the likelihood of injury to listed species to such an extent as to significantly disrupt normal behavior patterns, which include, but are not limited to, breeding, feeding, or sheltering. Incidental take is defined as take that is incidental to, and not the purpose of, the carrying out of an otherwise lawful activity. Under the terms of section 7(b)(4) and section 7(o)(2), taking that is incidental to and not intended as part of the agency action is not considered to be prohibited taking under the ESA provided that such taking is in compliance with the terms and conditions of this incidental take statement.

The measures described below are nondiscretionary, and must be undertaken by the Corps so that they become binding conditions of any permit issued to the applicant, as appropriate, for the exemption in action 7(o)(2) to apply. The Corps has a continuing duty to regulate the activity covered by this incidental take statement. If the Corps (1) fails to assume and implement the terms and conditions or (2) fails to require the applicant to adhere to the terms and conditions of the incidental take statement through enforceable terms that are added to the permit or grant document, the protective coverage of section 7(o)(2) may lapse. To monitor the impact of incidental take, the Corps or applicant must report the progress of the action and its impact on the species to the Service as specified in the incidental take statement.

#### AMOUNT OR EXTENT OF TAKE

The Service anticipates incidental take of the northeastern beach tiger beetle will be difficult to quantify and detect because any beetles (adult or larvae) that are killed during project construction, stockpiling of equipment and materials, and habitat loss will be difficult to observe or locate due to their coloring, small body size, and tendency for larvae to remain beneath the surface. However, the level of take of this species can be anticipated by areal extent of the habitat affected. The applicant's 100 foot long shoreline contains appropriate habitat for the northeastern beach tiger beetle in an area approximately 40 feet wide (MLW to the toe of the existing bulkhead). This incidental take statement anticipates that construction activities, including stockpiling of materials and equipment, and modifications of the beach

profile and distribution of sand within this area will result in habitat alteration, temporary habitat loss, and death of larval tiger beetles during the construction year, in a ten foot strip on the applicant's side of the groin, running from MLW to MHW (20 feet) and totaling 400 square feet. The Service anticipates these same impacts to adult tiger beetles, but extending in a ten foot strip an additional 30 feet landward to the existing bulkhead and totaling 1,000 square feet. The Service further anticipates temporary take throughout the entire action area, in the construction year, of adult tiger beetles due to disruption of their daily activity patterns (*i.e.*, foraging, mating, basking, egg-laying) and of larval beetles, which may be prevented from feeding during that time due to their sensitivity to vibrations, movements, and shadows.

#### REASONABLE AND PRUDENT MEASURES

The Service believes the following reasonable and prudent measures are necessary and appropriate to minimize take of the northeastern beach tiger beetle:

- o Construction activities must be conducted when adult beetles are not present.
- o Human activity, materials, and equipment on the beach must be minimized to reduce the impact to adult and larval tiger beetles.

#### TERMS AND CONDITIONS

To be exempt from the prohibitions of Section 9 of the ESA, the Corps and the applicant must comply with the following terms and conditions, which implement the reasonable and prudent measures described above. Monitoring is not required for this project because the anticipated take is minimal. These terms and conditions are nondiscretionary.

1. No construction, earth-moving, or placement of materials or equipment will occur on the beach between June 1 and September 15 of any year.
2. No maintenance of groins between June 1 and September 15 of any year.
3. No use of vehicles or heavy equipment will occur on the beach outside of the applicant's property boundaries. Non-vehicular ground disturbance will not occur outside the applicant's property boundaries, except as needed within ten feet of the groin.
4. No refueling of equipment or vehicles will occur on the beach.
5. No use of pesticides on the beach.
6. The applicant is required to notify the Service before initiation of construction and upon completion of the project at the address given below. All additional information to be sent to

the Service should be sent to the following address:

Virginia Field Office  
U.S. Fish and Wildlife Service  
6669 Short Lane  
Gloucester, Virginia 23061  
Phone (804) 693-6694  
Fax (804) 693-9032

7. Care must be taken in handling any dead specimens of northeastern beach tiger beetle that are found in the project area to preserve biological material in the best possible state. In conjunction with the preservation of any dead specimens, the finder has the responsibility to ensure that evidence intrinsic to determining the cause of death of the specimen is not unnecessarily disturbed. The finding of dead specimens does not imply enforcement proceedings pursuant to the ESA. The reporting of dead specimens is required to enable the Service to determine if take is reached or exceeded and to ensure that the terms and conditions are appropriate and effective. Upon locating a dead specimen, notify the Service at the address provided above.

The Service believes that some northeastern beach tiger beetles within the action area (4,000 square feet) will be incidentally taken as a result of the proposed action. Due to the variability in numbers of adults and larvae from year to year, it is difficult to quantify incidental take; however, the Service anticipates a reduction in the numbers of adults and larvae using the beach zone. The reasonable and prudent measures, with their implementing terms and conditions, are designed to minimize the impact of incidental take that might otherwise result from the proposed action. If, during the course of the action, this level of incidental take is exceeded, such incidental take represents new information requiring reinitiation of consultation and review of the reasonable and prudent measures. The Corps must immediately provide an explanation of the causes of the take, and review with the Service the need for possible modification of the reasonable and prudent measures and the terms and conditions.

#### IV. REINITIATION NOTICE

This concludes formal consultation on the action(s) outlined in the request. As provided in 50 CFR § 402.16, reinitiation of formal consultation is required where discretionary federal agency involvement or control over the action has been retained (or is authorized by law) and if: (1) the amount or extent of incidental take is exceeded; (2) new information reveals effects of the agency action that may affect

listed species or critical habitat in a manner or to an extent not considered in this opinion; (3) the action is subsequently modified in a manner that causes an effect to the listed species or critical habitat not considered in this opinion; or (4) a new species is listed or critical habitat designated that may be affected by the action. In instances where the amount or extent of incidental take is exceeded, any operations causing such take must cease pending reinitiation.

The Service appreciates this opportunity to work with the Corps in fulfilling our mutual responsibilities under the ESA. If you have any questions, please contact Jolie Harrison of this office at (804) 693-6694, extension 208.

Sincerely,

Karen L. Mayne  
Supervisor  
Virginia Field Office

Enclosures

## LITERATURE CITED

Knisley, C.B. 2001. A survey of the northeastern beach tiger beetle (*Cicindela dorsalis dorsalis*) along the western shoreline of the Chesapeake Bay, 2001. Report to the U.S. Fish and Wildlife Service, Gloucester, VA.

U.S. Fish and Wildlife Service. 1994. Northeastern beach tiger beetle (*Cicindela dorsalis dorsalis*) recovery plan. Hadley, MA. 60 pp.

bcc: Program Supervisor-ES-South, Region 5 (Jeff Underwood)  
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(JHarrison: 8-9-02)